

**REMARKS**

This amendment is responsive to the Office Action of December 5, 2003. Reconsideration and allowance of claims 14-24 are requested.

**The Office Action**

Claims 1-12 were previously cancelled.

Claims 13-20 and 22-24 stand rejected under 35 U.S.C. § 112, second paragraph.

Claims 13 and 14 stand rejected under 35 U.S.C. § 102 as being anticipated by Tabata (US 5,444,103).

Claims 16, 18, 20, and 23 stand rejected under 35 U.S.C. § 103 as being obvious over Tabata.

Claims 13-16, 18-20, and 23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Tigera (US 6,486,481) in view of Tabata.

Claims 17, 21, 22, and 24 were indicated as containing allowable subject matter.

**The References of Record**

In **Tabata**, sheets of commercial PTFE of various thicknesses from about 0.3 mm to 1 mm were placed in a vacuum and exposed to electron beams. There is no suggestion of entraining PTFE sheets in a carrier gas. Indeed, the placing of the sheets in a vacuum chamber suggests that the sheets are not entrained or recirculated.

**Tigera** conveys PTFE flakes to a conveyor which carries them to a cyclone distribution chute **21** which spreads an even layer of the flakes on a vibratory table **14**. The flakes are irradiated as they pass along the vibratory table. Tigera specifically teaches that flakes which are entrained should be removed from the entrained state before treatment with the radiation and may be re-entrained only after the irradiation process is complete.

**The Present Amendment**

**Claim 17**, which was indicated as containing allowable subject matter, has been placed in independent form and the indefiniteness noted by the Examiner resolved. Accordingly, it is submitted that **claim 17 and claims 14-16 and 20 dependent therefrom** are now in condition for allowance.

**Claim 18** calls for entraining fluoropolymer material into an oxygen depleted gas and irradiating the fluoropolymer material while it is in the entrained state. Tabata treats sheets of fluoropolymer material in a vacuum chamber. Tabata provides no means for entraining the fluoropolymer material and makes no suggestion that it would be advantageous to do so. Tigera specifically teaches that entrained fluoropolymer materials should be removed from suspension and treated in a non-entrained state. Thus, Tigera teaches against treating the fluoropolymer material in an entrained state. Accordingly, it is submitted that **claim 18 and claim 19 dependent therefrom** distinguish patentably and unobviously over the references of record.

**Claim 21** stands allowed.

**Claim 22** has been amended to resolve the language issues noted by the Examiner. Because claim 22 is indicated as containing allowable subject matter, it is submitted that **claim 22** is now in condition for allowance.

**Claim 23** has been amended to emphasize that the fluoropolymer material is irradiated while it is entrained. Because Tabata makes no suggestion of irradiating the PTFE material while entrained, and Tigera specifically teaches that the fluoropolymer material should be deposited from an entrained state before being irradiated, it is submitted that **claim 23** distinguishes patentably and unobviously over the references of record.

**Claim 24** has been amended to resolve the wording issues noted by the Examiner. Because claim 24 was indicated as containing allowable subject matter, it is submitted that **claim 24** is now in condition for allowance.

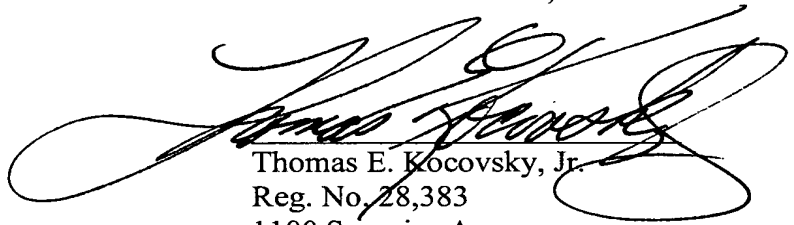
**CONCLUSION**

For the reasons set forth above, it is submitted that claims 14-24 are now in condition for allowance. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this cases, he is requested to telephone Thomas Kocovsky at (216) 861-5582.

Respectfully submitted,

FAY, SHARPE, FAGAN,  
MINNICH & McKEE, LLP

A large, stylized handwritten signature in black ink, likely belonging to Thomas E. Kocovsky, Jr., is written over the printed name and address.

Thomas E. Kocovsky, Jr.  
Reg. No. 28,383  
1100 Superior Avenue  
Seventh Floor  
Cleveland, OH 44114-2518  
(216) 861-5582